

## REMARKS

Claims 1-24, 32-43, 51-77, 85-105, 112-123 and 164 are pending in the above-identified application. Applicants have amended claims 1, 8, 9, 32, 37, 51, 54, 55, 59, 69, 70, 85, 92, 112 and 117 and have cancelled, without prejudice, claim 91.

Applicants respectfully request that the attorney docket number be changed. Kindly replace "36601/CAG/B600" with -15258US02--.

Claims 1-24, 32-43, 51-77, 85-105, 112-123 and 164 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,953,640 ("Meador") in view of U.S. Patent No. 6,526,034 ("Gorsuch"). Applicants have amended independent claims 1, 32, 51, 85 and 112.

Claim 1 has been amended and now recites "wherein the programming comprises programming a demodulator with a demodulation". Claim 32 has been amended and now recites "wherein the programming of one of the receiver and the transmitter comprises programming a demodulator with a demodulation". Claim 51 has been amended and now recites "wherein the controller programs a demodulator with a demodulation". Claim 85 has been amended and now recites "wherein the receiving means comprises means for demodulating the received first signal, and wherein the programming means comprises means for programming the demodulating means with a demodulation". Claim 112 has been amended and now recites "means for programming a demodulator with a demodulation". Support for the amendment can be found, for example, in at least some of the elements recited in claims 8, 9, 37, 54, 55, 59, 69, 70, 91, 92 and 117.

To maintain an obviousness rejection, each and every element of each and every claim must be taught by the combination of references. Applicants respectfully submit that Meador in view of Gorsuch does not teach at least the above-recited elements with respect to claims 1, 32, 51, 85 and 112. Meador teaches, for example, a demodulator 107 in FIG. 1A; a demodulator 238 in FIG. 2; and a demodulator in FIG. 6. However, none of the above-listed demodulators are programmable. Gorsuch does not make up for the teaching deficiencies of Meador. Instead, Gorsuch only teaches a switch 211a in FIG. 6 that appears to be controlled by a W-LAN detection circuit 201. The controlled switch 211a can switch between two communications paths. Nevertheless, Gorsuch does not teach, for example, programming a demodulator with a demodulation or similar elements as recited above with respect to claims 1, 32, 51, 85 and 112.

For at least the above reasons, Applicants respectfully submit that independent claims 1, 32, 51, 85 and 112 and their dependent claims (i.e., claims 2-24, 33-43, 52-77, 86-90, 92-105, 113-123 and 164) are not obvious over Meador in view of Gorsuch and the obviousness rejection should be withdrawn.

In addition, Applicants note that Meador spends the majority of its discussion with respect to the receiver portion of the single-chip transceiver IC (SCT IC) 100 and does not teach very much with respect to the transmitter portion of the SCT IC 100. Applicants further submit that Gorsuch, as alleged by the Examiner, does not make up for the teaching deficiencies of Meador. For example, Applicants respectfully submit that Meador does not teach that "the transmission of the second signal comprises amplifying the second signal with an amplifier, and the programming comprises programming gain of the amplifier" as set forth in claim 3. Meador is silent as to, for example, the programmable gain of an amplifier in the transmitter portion of the SCT IC 100 and Gorsuch, as alleged by the Examiner, does not make up for the teaching deficiencies of Meador. Accordingly, Applicants respectfully submit that these or similar elements are not taught by Meador and Gorsuch, as alleged by the Examiner, with respect to claims 3-5, 11, 12, 57, 58, 63, 65, 71, 87, 88, 93, and 122, for example. For the additional above reasons, claims 3-5, 11, 12, 57, 58, 63, 65, 71, 87, 88, 93 and 122 are not obvious over Meador in view of Gorsuch and the obviousness rejection should be withdrawn.

Furthermore, claim 14 and claim 17 recite that downconversion comprises mixing the received first signal with a clock in which the clock comprises a frequency  $f_{LO}$  equal to  $f_{VCO} (N+1) / N$ , wherein  $f_{VCO}$  equals a frequency of the second clock. Claim 19 and 23 recite similar elements with respect to upconversion. Meador only describes a DIV 2 block 182 and a DIV N block 186. Neither Meador nor Gorsuch, as alleged by the Examiner, teaches the clock used for downconversion and upconversion comprising a frequency  $f_{LO}$  equal to  $f_{VCO} (N+1) / N$ . The particular relation  $f_{VCO} (N+1) / N$  is not taught or suggested by the combination of Meador and Gorsuch as alleged by the Examiner. Similar elements may be found, for example, in claims 40, 98, 104 and 120. Accordingly, Applicants respectfully submit that these or similar elements are not taught by Meador and Gorsuch, as alleged by the Examiner, with respect to claims 17, 23, 40, 98, 104 and 120 for example. For the additional above reasons, claims 17, 23, 40, 98, 104 and 120 are not obvious over Meador in view of Gorsuch and the obviousness rejection should be withdrawn.

In addition, claim 34 recites that "the received first signal is downconverted to an intermediate frequency signal". Meador in FIG. 1A makes it clear that by using only a single mixing via mixers 130, 131, the incoming RF signal 102 is downconverted directly to baseband signals. See, e.g., Meador at col. 2, lines 31-41. Meador describes a DIRECT downconversion and not a downconversion, for example, that downconverts to an intermediate frequency band before downconverting to a baseband signal. Neither Meador nor Gorsuch, as alleged, teaches downconverting to an intermediate frequency signal. It is true that Meador does describe an IF processing block 232 which, according to FIG. 2 of Meador, is connected to a front end block 210 which receives the RF input signal. However, the specification of Meador makes clear that the front end block 210 downconverts the RF input signal directly to baseband. See Meador at col. 5, lines 25-28. In fact, the IF processing block 232 must UP CONVERT the baseband signal before processing. See, e.g., Meador at col. 5, lines 35-36. By comparing FIG. 1A and FIG. 2 of Meador, it is clear that the IF processing block 232 of FIG. 2 is the same as the up mixer block 105 in FIG. 1A. As is clear from the specification of Meador the up mixer block 105 takes limited baseband signals and upconverts them using up mixers. See, e.g., Meador at col. 2, lines 39-44. Thus, neither reference individually or combined teaches or suggests downconverting to an intermediate frequency signal. Similar elements may be found, for example, in claims 35, 36 and 114-116. Accordingly, Applicants respectfully submit that these or similar elements are not taught by Meador and Gorsuch, as alleged by the Examiner, with respect to claims 34-36 and 114-116, for example. For the additional above reasons, claims 34-36 and 114-116 are not obvious over Meador in view of Gorsuch and the obviousness rejection should be withdrawn.


For at least the above reasons, it is respectfully requested that the obviousness rejection be withdrawn with respect to claims 1-24, 32-43, 51-77, 85-90, 92-105, 112-123 and 164.

Should anything remain in order to place the present application in condition for allowance, the Examiner is kindly invited to contact the undersigned at the telephone number listed below.

Please charge any required fees not paid herewith or credit any overpayment to the  
Deposit Account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

Dated: February 28, 2005

Respectfully submitted,

  
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